

**ELECTRICIAN ASSISTANT
ELECTRICIAN
SENIOR ELECTRICIAN**

**Class No. 006210
Class No. 005920
Class No. 005923**

DEFINITION:

To perform a variety of general electrical work in the installation, maintenance, and repair of electrical devices and systems; and to perform related work.

DISTINGUISHING CHARACTERISTICS:

Electrician Assistant:

This is the entry-level class in the electrician class series. Under immediate supervision, Electrician Assistants perform progressively more responsible and independent electrical installation, maintenance and repair work on a variety of electrical devices and systems.

Electrician:

This is the journey-level class in the electrician series. Under general supervision, Electricians independently perform electrical installation, maintenance and repair work on a wide variety of facilities, equipment and electrical devices.

Senior Electrician:

This is the lead-level class in the electrician class series. Under direction, Senior Electricians perform the most difficult electrical work and lead the work of subordinate electricians in the installation, maintenance and repair of a wide variety of facilities, equipment and electrical devices. This class differs from the next higher class, Electrician and Security Alarm Supervisor, in that the latter is a first-line supervisor responsible for directing personnel performing design, installation, maintenance and repair work in two functional areas: 1) electrical work and, 2) alarm and security systems.

EXAMPLE OF DUTIES:

Installs electric light and power circuits in various building and utility spaces; splices cable and services underground street lighting cables and conduits; trouble-shoots, adjusts and repairs motors, compressors, generators, street lighting systems, and other electrical power apparatus; installs and maintains centrifugal water and sewer pumps; installs and repairs special electro-mechanical machines and equipment such as liquid level indicators, gauges, resistors, electro-pneumatic sensors, windings, alarms and safety devices; responds to calls for emergency service at county facilities; posts electrical hazard safety warning signs at job sites; ensures the electrical safety of vehicles and equipment; performs preventive maintenance inspections and services; and repairs small appliances and small motor driven equipment.

Electrician:

All of the duties listed above and: responds to calls for emergency service at county facilities; prepares work progress reports; estimates job time, materials and equipment; orders materials and supplies; maintains records; inspects privately installed street lighting systems for compliance with county standards.

Senior Electrician:

All of the duties listed above and: provides technical guidance and training to other electricians; makes field inspections of work in progress; plans and directs work and ensures that safety procedures and policies are followed on projects; coordinates work with other crafts and contractors; maintains daily assignment sheet; orders materials and supplies; acts in the absence of the Supervising Electrician and Security Alarm Supervisor.

MINIMUM QUALIFICATIONS:

Knowledge Level: T = Thorough; G = General; -- = Not Applicable

Classification Level: I = Electrician Assistant
II = Electrician
III = Senior Electrician

Knowledge of:

<u>I</u>	<u>II</u>	<u>III</u>	
T	T	T	Methods and techniques of wiring and installation of electrical equipment.
T	T	T	Electrical tools, equipment, and materials.
T	T	T	Methods and techniques for minor trouble shooting of electrical systems in buildings, utility systems, signal and emergency systems, heavy equipment, and air-conditioning systems .
G	T	T	Electrical principles, practices, tools, equipment and materials.
G	T	T	Electrical codes and safety orders.
G	G	T	Electrical theory and design.
G	G	T	Occupational hazards and shop and field safety practices.
G	G	T	Reading and interpreting construction blueprints, specifically electrical wiring diagrams and schematics.
--	--	G	Principles and practices of supervision and training.

Skills and Abilities to:

The following apply to all classes:

- Diagnose minor electrical malfunctions.
- Perform electrical repairs.
- Install new electrical systems and equipment.
- Read, understand and interpret oral and written instructions.
- Perform basic arithmetic computations.
- Maintain effective working relationships with those contacted in the course of work.
- Climb and work from ladders or in high areas.
- Distinguish colors to identify color-coded electrical wires.

Electrician (in addition to the above):

- Interpret and work from specifications, blueprints and plans.
- Diagnose electrical malfunctions.
- Perform complex electrical repairs.
- Estimate time, materials and equipment for various jobs.

Senior Electrician (in addition to the above):

- Assign and train the work of subordinate electricians.
- Prepare schematics and wiring diagrams.

- Maintain records and order supplies.

EDUCATION/EXPERIENCE:

Education, training and/or experience, which demonstrate possession of the knowledge, skills and abilities stated above. Examples of qualifying training/experience are:

Electrician Assistant:

1. Two (2) years of experience in a recognized electrician apprenticeship program; OR,
2. One (1) year of experience as a journey-level electrician in the installation, maintenance and repair of electrical devices and systems.

Electrician:

1. Three (3) years of experience as an Electrician Assistant in the County of San Diego; OR,
2. Four (4) years of experience in general electrical work in the installation, maintenance and repair of electrical devices and systems, two (2) years of which are at a journey-level in the building trades.

Note: Possession of an Electrical Contractors License issued by the State of California is considered qualifying.

Senior Electrician:

1. Two (2) years of experience as an Electrician in the County of San Diego; OR,
2. Four (4) years of journey-level experience in the installation, maintenance and repair of electrical devices and systems; OR,
3. Possession of an Electrical Contractors License issued by the State of California.

SPECIAL NOTES, LICENSES, OR REQUIREMENTS:

Licenses:

Possession of a valid California Class C driver's license, which must be maintained throughout employment in this class, or the ability to arrange transportation for field travel. Employees in this class may be required to use their personal vehicle.

Working Hours:

Subject to weekend work, standby and emergency call back.

Working Conditions:

May be exposed to weather, dust, fumes, heights, gases, electrical currents and machine noises. Incumbents may be assigned to any County of San Diego facility e.g. medical institutions, detention facilities, wastewater treatment plants, office buildings, garages. May work in places that are cramped, hot, high and/or asbestos-laden.

Physical Requirements:

Incumbents may lift large and heavy objects, weighing up to 50 pounds, and occasionally 70 pounds. Good vision and color perception. Climbing and crawling to reach remote areas.